UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

DATE MAILED: 07/01/2008

NOTICE OF ALLOWANCE AND FEE(S) DUE

23850 7590 07/01/2008 KRATZ, QUINTOS & HANSON, LLP

1420 K Street, N.W. Suite 400 WASHINGTON DC 20005

EXAMINER				
WYSZOMJERSKI, GEORGE P				
ART UNIT	PAPER NUMBER			
1703	•			

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,650	04/04/2006	Makoto Takahashi	060244	7633

TITLE OF INVENTION: HEAT-RESISTANT CAST STEEL EXCELLENT IN AGED DUCTILITY AND CREEP RUPTURE STRENGTH FOR HYDROGEN PRODUCING REACTION TUBES

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	10/01/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence includired below or directed oth	ig the Patent, advance of terwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees wi pondence address;	II be i	mailed to the current (b) indicating a sepa	correspondence address as arate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Noti Feet paps	e: A certificate of n s) Transmittal. This rs. Each additional	certifi paper,	can only be used for icate cannot be used for such as an assignment	r domestic mailings of the or any other accompanying nt or formal drawing, must
23850	7590 07/01	/2008	nave				
1420 K Street, N Suite 400		N, LLP	I he Stat addi tran	reby certify that this	Feets	of Mailing or Trans Transmittal is being ficient postage for first ISSUE FEE address 273-2885, on the d	mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.
WASHINGTON	, DC 20003						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/574,650	04/04/2006	<u> </u>	Makoto Takahashi			060244	7633
TITLE OF INVENTION HYDROGEN PRODUCT			LLENT IN AGED DUC	TILITY AND CRI	EEP I	RUPTURE STRENG	TH FOR
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740	10/01/2008
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
WYSZOMIERS	KI, GEORGE P	1793	I48-327000				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address (or Change of Correspondence Address from FT0OSB/122) attached. "Fee Address" indication (or "Fee Address" Indication form FTOOSB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively (2) the name of a single firm thaving as a member a 2 registered patent autorneys or agents. If no name is listed, no name will be printed.				
PLEASE NOTE: Uni recordation as set forti (A) NAME OF ASSIG	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee eletion of this form is NO	(B) RESIDENCE: (CITY	atent. If an assigner assignment. and STATE OR CO	DUNT	RY)	ocument has been filed for
4a. The following fee(s):							
4a. The following fee(s):	are submitted:	44	 Payment of Fee(s): (Plea	se first reapply any	prev	iously paid issue fee	snown above)
☐ Publication Fee (No small entity discount permitted) ☐ Payment by credit card. Form PTO-2038 is attached.							
Advance Order - # of Copies The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					ficiency, or credit any n extra copy of this form).		
5. Change in Entity Star	tus (from status indicate s SMALL ENTITY statu		☐ b. Applicant is no lon				
NOTE: The Issue Fee and	d Publication Fee (if requeeords of the United Sta	ired) will not be accepte tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regist	tered a	ttorney or agent; or th	ne assignee or other party in
Authorized Signature							
Typed or printed name			Registration No	o			
This collection of inform an application. Confident submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this bu firginia 22313-1450. DC 13-1450.	FR 1.311. The informatis U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the NOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any con r, U.S. Patent and T D'THIS ADDRESS.	e publ inutes nment 'radem SENI	ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep. O TO: Commissioner	by the USPTO to process) gg gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

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APPLICATION NO.	1	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,650		04/04/2006	Makoto Takahashi	060244	7633
23850	7590	07/01/2008		EXAM	INER
KRATZ, QUINTOS & HANSON, LLP			WYSZOMJERS	KI, GEORGE P	
1420 K Street, N.W.			ART UNIT	PAPER NUMBER	
Suite 400 WASHINGTON, DC 20005			1793		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 253 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 253 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
10/574,650	TAKAHASHI ET AL.
Examiner	Art Unit
George P. Wyszomierski	1793

-- The MALING DATE of this communication appears on the cover sheat with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to the Amendment filed 5/8/08,
- The allowed claim(s) is/are 1-16.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1. T Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date ______

 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- Other .

Application/Control Number: 10/574.650

Art Unit: 1793

1. The following is an examiner's statement of reasons for allowance:

The prior art does not disclose or suggest a steel composition including an amount of carbon as recited in claim 1 as amended, together with amounts of silicon, manganese, chromium, nickel, niobium, titanium, and cerium as recited in claim 1, and further meeting the "P" value as defined in claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/George Wyszomierski/ Primary Examiner Art Unit 1793